

ABSTRACT OF THE DISCLOSURE

Unusual or unanticipated changes in multi-dimensional data sets (e.g., time series of image data) are identified using a vector prediction process. A plurality of artificial neural networks are trained to predict values of a subset of a multi-dimensional data set from a second subset of the multi-dimensional data sets. The artificial neural networks are then used to predict anticipated values for the same data used in training. Substantial differences between the anticipated and actual values represent an unanticipated change.